Michael Yenik

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github.com/mgyenik

Education

2010 – 2014 **B.S. in Computer Engineering**, *NC State University*, Raleigh, NC.
GPA: 3.6/4.0

Experience

Industry

May 2016 – Present **Software Engineer - Embedded**, *Google*, Seattle, WA.
I currently work on embedded projects in Google's Research and Machine Intelligence group. I work on a team that seeks to apply machine intelligence models to problems which require computation at the "edge" such as Google Clips. I work on everything from board bringup at the factory to adaptive JPEG quantizaiton algorithms that run on special DSP cores.

January 2015 – May 2016 **Software Engineer - Production Linux Kernel**, *Google*, Kirkland, WA.
I worked on a now public project, gVisor, on virtualization technology. My work was both inside the kernel, from the lowest level of interacting with page tables and Intel vmx instructions, all the way to the higher levels of talking to users of gVisor and creating an improved API that made the technology easier to use.

Summer 2014 **Software Engineering Intern - Production Linux Kernel**, *Google*, Mountain View, CA.
I helped with the foundations of the project now released to the public called gVisor, working to get some of the initial kernel support and guest ring 0/ring 3 components demonstrated. I would later come back full time to help fully develop gVisor.

Summer 2013 **Software Engineering Intern - Production Linux Kernel**, *Google*, Mountain View, CA.
I ported the kernel feature "restartable sequences" to a new architecture, a very cool kernel optimization to make certain thread synchronization operations much faster, which required a considerable amount of crafty assembly programming to get the userspace side working. After that I worked on process save/restore with CRIU.

Independent

April 2018 – Present **Acid Rain Technology**.
Sole engineer/embedded developer in Acid Rain Technology LLC. A friend and I started a small company that makes modular synthesizer modules. I take our ideas, design circuits to implement them, write any embedded software needed, and prepare the files for our CM to have the modules manufactured.

Extracurricular

NCSU Aerial Robotics Club.
While in the NCSU Aerial Robotics Club I was one of the main developers for the payload electronics system. I worked on systems integration of our flight computer and ground image processing system, designed the power electronics used in the aircraft, worked on the ground based tracking antenna to point at the plane, and many other projects over 4 years. I was the Vice President of the club one of the years I was involved.

Skills

Technical Skills.
I have varying experience with the following keywords, from highly experienced and knowledgeable to just dabbling in my free time. I am the most experienced with embedded C/C++ on ARM (especially STM32) and AVR microcontrollers, and Linux kernel development. A typical day of hobbies for me is wrangling vendor SDKs with makefiles and linker scripts, and writing interrupt handlers and peripheral drivers.

Languages.
C, C++, Go, asm (lots of architectures), Python, Rust

Other Technology.
Git, GNU Make, Vim, Emacs, tmux, gdb, LLVM/GCC toolchains, Protobuf, ARM, STM32, AVR, PowerPC, Arduino, linker scripts, device tree, Bazel, bash, zsh, ssh, docker, Linux kernel